

March 2, 1964

FISHERIES MANAGEMENT PROJECT EVALUATION

F-5-R-13 Central Montana Fisheries Study--Steve E. Swedberg

Job II. Evaluation of Fish Habitat Destruction in Prickly Pear Creek Due to Construction of Interstate Highway 15

The purpose of this investigation is to determine the extent of physical habitat destruction caused by construction of Interstate Highway 15 along Prickly Pear Creek and obtain information concerning its effect on the fish and aquatic insect populations.

Up to the present time the following information has been collected and analyzed for 1962-63, but have not been analyzed for 1963-64.

1. Water Temperatures: Two Minicorders were placed in the stream, one above the construction area at the Sieben Ranch and the other at Wolf Creek. Temperatures were recorded during July through September.
2. Bottom Fauna Samples: A square-foot Surber sampler was used to collect organisms at 5 stations. Station 5 was located above the construction area about one mile above the Sieben Ranch. Station 5 serves as a control, the other 4 stations are located within the construction area. Three 4-square feet were sampled at each station in June and September of 1961, 1962 and 1963.
3. Fish: The fish population was sampled at six stations established in 1949 and repeated in 1950, 1951, 1961, 1962 and 1963. Samples were collected in August and September. ¹⁵⁰ Stations were 600 feet in length and were electro-fished in 150 foot lengths. Each 150-foot section was first blocked at each end with nets and then electrofished. All fish except sculpins were collected in live boxes, anesthetized, weighed, measured, scale samples taken, and then released.
4. Sediment Samples: Samples were collected in 1963 by the U. S. Geological Survey; but their analysis has not been received.
5. Physical Measurements: The physical characteristics of the stream bed were measured and listed according to the specifications described in Montana's stream survey instructions. Measurements were tabulated to just below Turtle Rock, and again, 2,200 feet below this point. The post-construction measurements will be started in August 1964.
6. Ground Water Quality: Only one series were collected in February 1962. Standpipes have been ordered but have not been received.

This project will continue for approximately 2 years.